

CLAIMS

What is claimed is:

1. (Currently amended) An integrated circuit, comprising:
at least one DC to DC converter including structure for receiving a supply voltage and structure for producing a plurality of output voltages including at least one ~~intermediate voltage~~, ~~at least one of said intermediate output voltages having~~ at a greater voltage level than said supply voltage; and
processing circuitry having structure for receiving at least one of said plurality of output voltages as its supply voltage and at least one time-varying input signal, said processing circuit ~~and~~ modifying a parameter of said time-varying signal to produce a modified time-varying signal; and said processing circuit having a plurality of outputs, wherein an output voltage level of a first of said outputs is greater than an output voltage level of a second of said outputs.
2. (Currently amended) The integrated circuit of claim 1, wherein said time-varying input signal comprises an RF, microwave or a digital signal ~~processing circuitry further receives~~ ~~said intermediate voltage having a greater voltage level than said supply voltage.~~
3. (Original) The integrated circuit of claim 1, wherein said parameter is selected from the group consisting of a voltage level and a frequency.
4. (Currently amended) The integrated circuit of claim 1, wherein said DC to DC converter includes structure for receiving opposite phase clock signals, said clock signals

{WP321534;2}

~~toggle between said supply voltage and ground modification is selected from the group consisting of increasing said parameter and decreasing said parameter.~~

5. (Original) The integrated circuit of claim 1, wherein said processing circuitry comprises digital circuitry.

6. (Original) The integrated circuit of claim 1, wherein said processing circuitry comprises analog circuitry.

7. (Original) The integrated circuit of claim 1, wherein said processing circuitry comprises analog and digital circuitry.

8. (Original) The integrated circuit of claim 1, wherein said time-varying input signal is a digital signal.

9. (Original) The integrated circuit of claim 1, wherein said time-varying input signal is an analog signal.

10. (Original) The integrated circuit of claim 1, wherein said parameter of said time-varying signal that is modified by said processing circuitry is programmable.

11. (Original) The integrated circuit of claim 1, wherein said processing circuitry comprises an input buffer and an output buffer.

{WP321534:2}

12. (Original) The integrated circuit of claim 1, further comprising at least one passive element for providing programmability to said at least one intermediate voltage.

13. (Original) The integrated circuit of claim 12, wherein said at least one passive element is a peripheral passive element.

14. (Original) The integrated circuit of claim 1, wherein said DC to DC converter is switched capacitor based.

15-16. Cancelled

17. (Currently amended) A circuit board, comprising:

a plurality of integrated circuits disposed on said board, said plurality of integrated circuits collectively requiring a plurality of different supply voltage levels and signals at respective inputs for operation; and

an integrated power supply circuit disposed on said board, said integrated power supply circuit comprising:

at least one DC to DC converter including structure for receiving a supply voltage and structure for producing a plurality of output voltages including at least one ~~intermediate voltage~~, ~~at least one of said intermediate~~ output voltages ~~having~~ at a greater voltage level than said supply voltage, more than one of said plurality of output voltages coupled to said plurality of integrated circuits, and;

{WP321534;2}

processing circuitry having structure for receiving at least one of said plurality of output voltages as its supply voltage and at least one time-varying input signal, said processing circuit ~~and~~ modifying a parameter of said time-varying signal to produce a modified time-varying signal; ~~and~~ said processing circuit having a plurality of outputs coupled to said inputs of said plurality of integrated circuits, wherein an output voltage level of a first of said outputs is greater than an output voltage level of a second of said outputs.

18. (Currently amended) The circuit board of claim 17, wherein said time-varying input signal comprises an RF, microwave or a digital signal ~~processing circuitry further receives said intermediate voltage having a greater voltage level than said supply voltage.~~

19. (Original) The circuit board of claim 17, wherein said parameter is selected from the group consisting of a voltage level and a frequency.

20. (Currently amended) The circuit board of claim 17, wherein said DC to DC converter includes structure for receiving opposite phase clock signals, said clock signals toggling between said supply voltage and ground ~~modification is selected from the group consisting of increasing said parameter and decreasing said parameter.~~

21. (Original) The circuit board of claim 17, wherein said processing circuitry comprises digital circuitry.

22. (Original) The circuit board of claim 17, wherein said processing circuitry comprises analog circuitry.

23. (Original) The circuit board of claim 17, wherein said processing circuitry comprises analog and digital circuitry.

24. (Original) The circuit board of claim 17, wherein said time-varying input signal is a digital signal.

25. (Original) The circuit board of claim 17, wherein said time-varying input signal is an analog signal.

26. (Original) The circuit board of claim 17, wherein said parameter of said time-varying signal that is modified by said processing circuitry is programmable.

27. (Original) The circuit board of claim 17, wherein said processing circuitry comprises an input buffer and an output buffer.

28. Cancelled

29. (Original) The circuit board of claim 28, wherein said at least one passive element is a peripheral passive element.

{WP321534;2}

30. (Original) The circuit board of claim 17, wherein said DC to DC converter is switched capacitor based.

31. Cancelled

{WP321534;2}